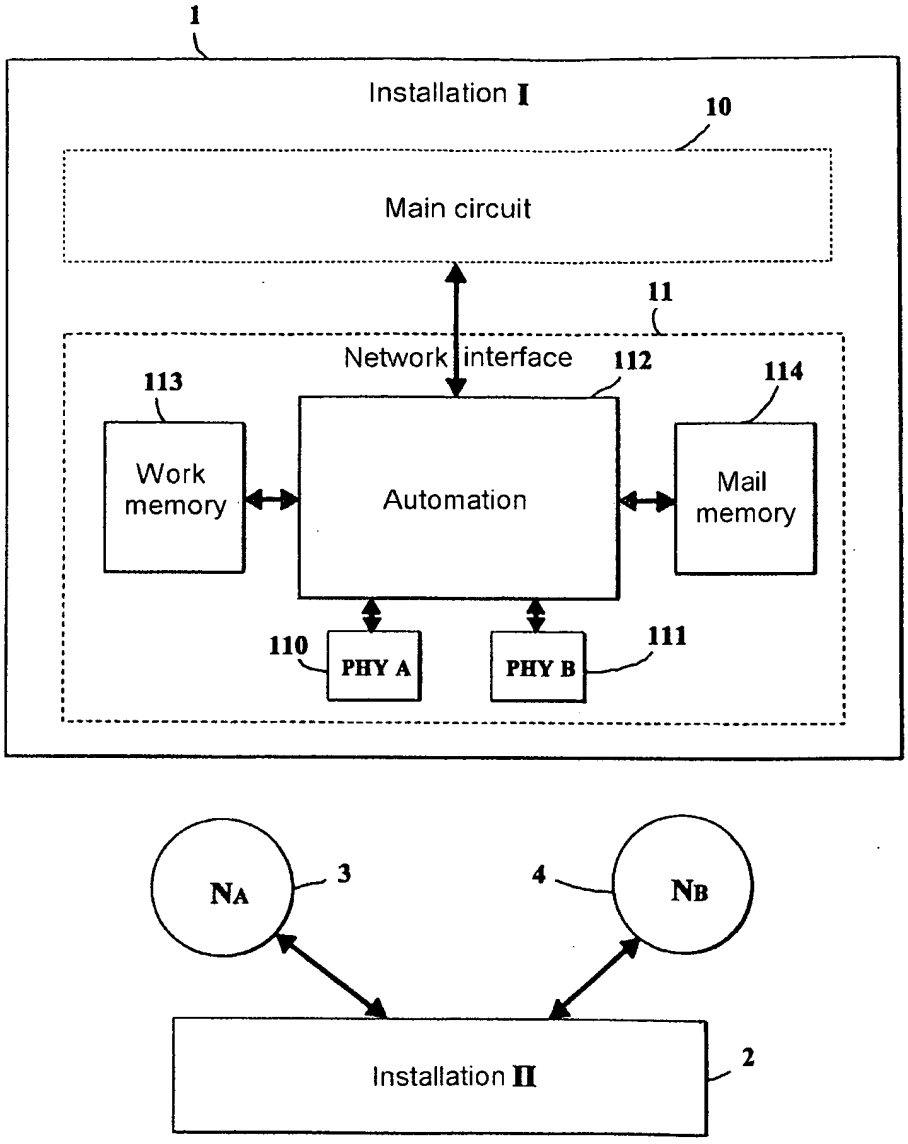
1
Installation I
10
Main circuit
11
Network interface
112
113
114
Work memory
Automation
Mail memory
110
PHY A
PHY B
111
NA
3
4
NB
Installation II
2

FIG.1

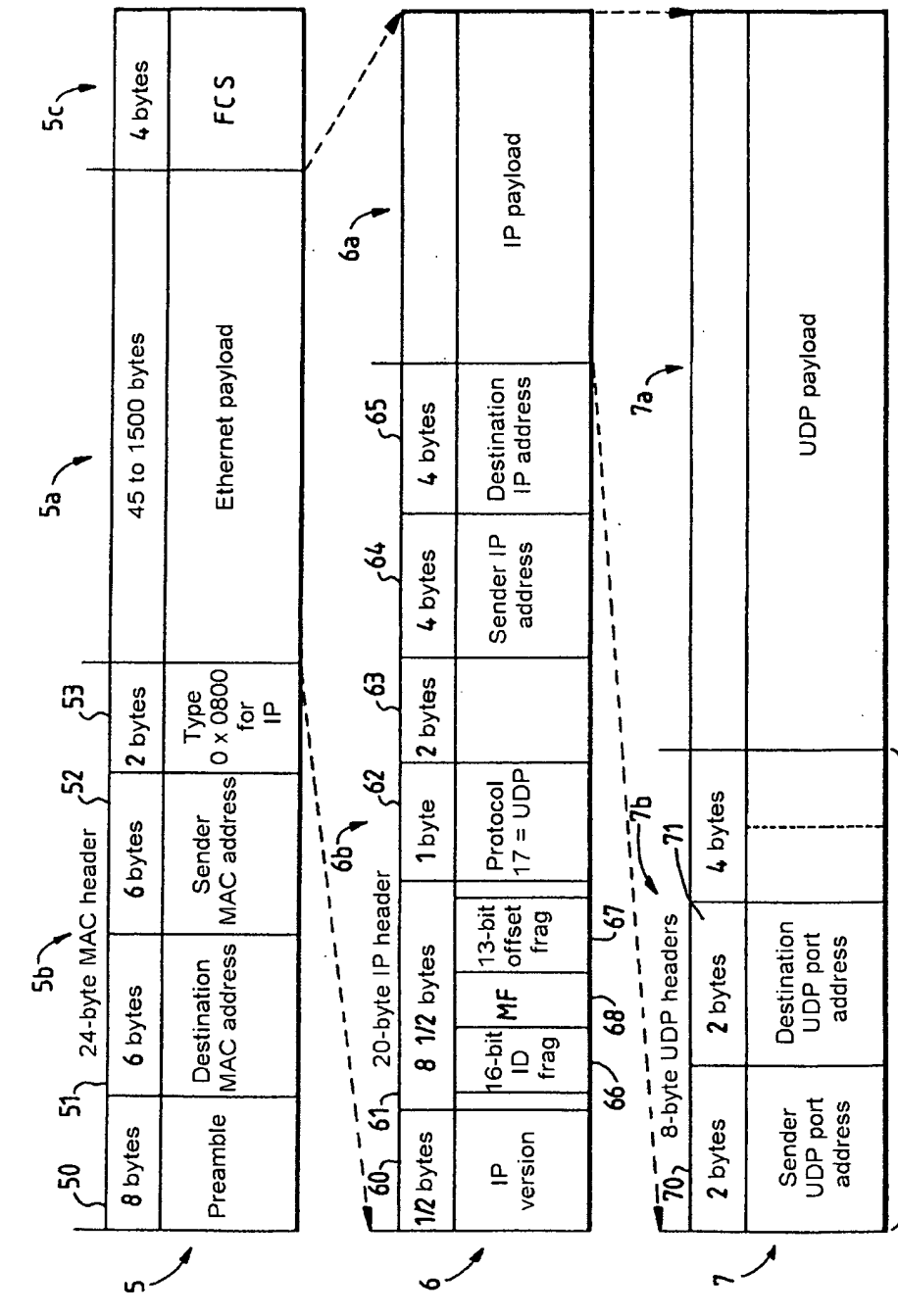
5
5a
5b
5c
24-byte MAC header
8 bytes
6 bytes
6 bytes
2 bytes
45 to 1500 bytes
4 bytes
Preamble
Destination MAC address
Sender MAC address
Type 0 x 0800 for IP
Ethernet payload
FCS
50
51
52
53
6
6a
6b
20-byte IP header
1/2 bytes
8 1/2 bytes
1 byte
2 bytes
4 bytes
4 bytes
IP version
16-bit ID frag
MF
13-bit offset frag
Protocol 17 = UDP
Sender IP address
Destination IP address
IP payload
60
61
62
63
64
65
66
67
68
7
7a
7b
8-byte UDP headers
2 bytes
2 bytes
4 bytes
Sender UDP port address
Destination UDP port address
UDP payload
70
71
Only if fragment offset = 0

FIG.2

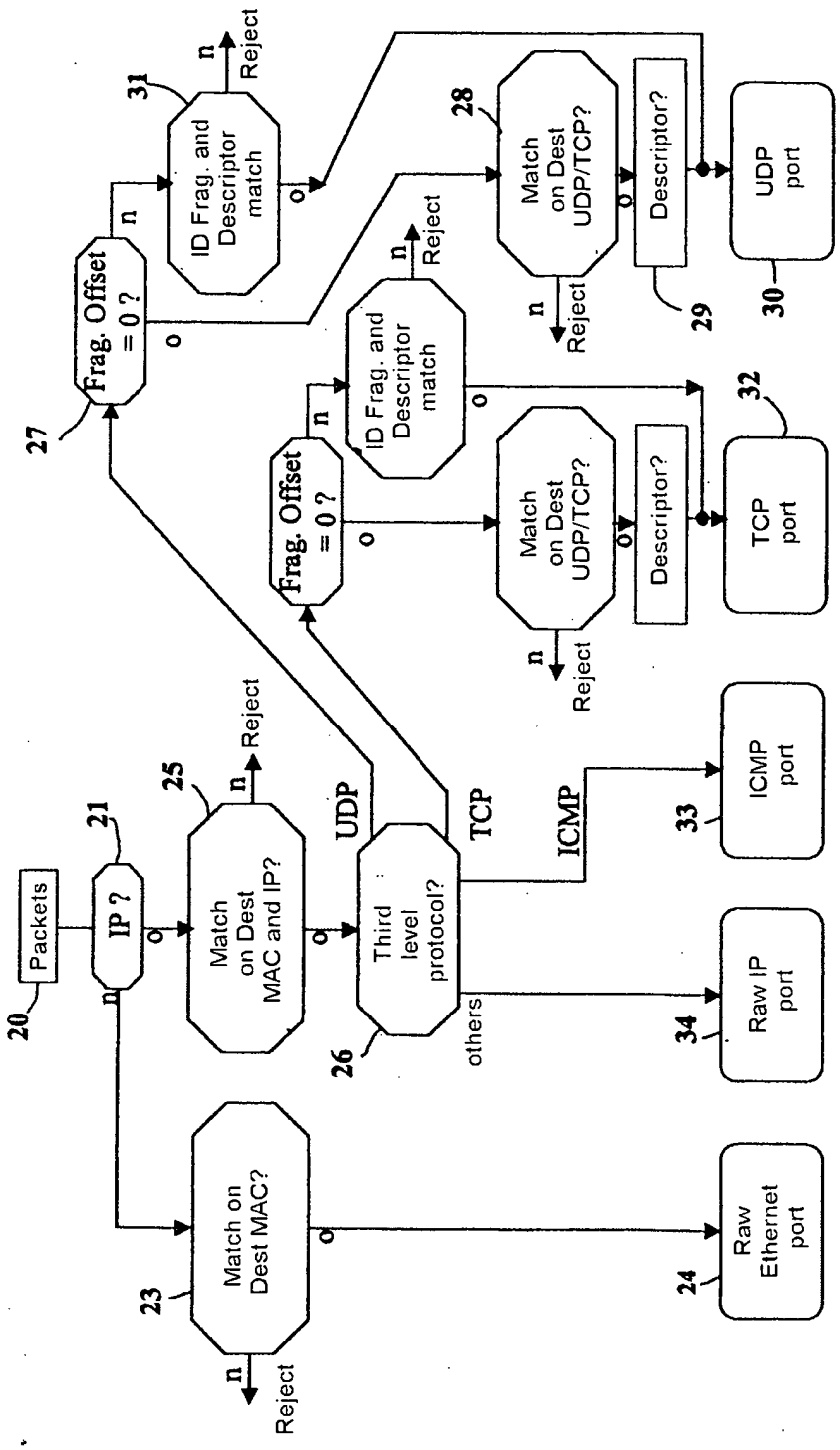
Packets
20
IP ?
21
Match on Dest MAC and IP?
25
Reject
Third level protocol?
26
UDP
TCP
ICMP
others
Match on Dest MAC?
23
Reject
Raw Ethernet port
24
Raw IP port
34
ICMP port
33
Frag. Offset = 0 ?
27
ID Frag. and Descriptor match
31
Reject
Match on Dest UDP/TCP?
28
Reject
Descriptor?
29
UDP port
30
Frag. Offset = 0 ?
ID Frag. and Descriptor match
Reject
Match on Dest UDP/TCP?
Reject
Descriptor?
TCP port
32

FIG.3

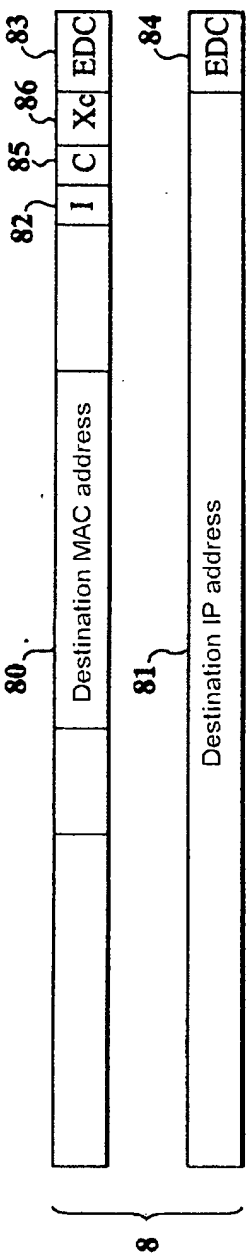
80
Destination MAC address
82
I
85
C
86
Xc
83
EDC
81
Destination IP address
84
EDC
8

FIG.4

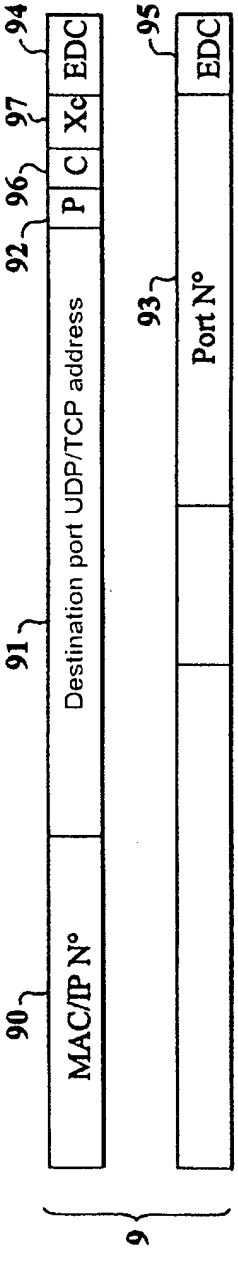
91
Destination port UDP/TCP address
92
P
96
C
97
Xc
94
EDC
90
MAC/IP N°
93
Port N°
95
EDC
9

FIG.5

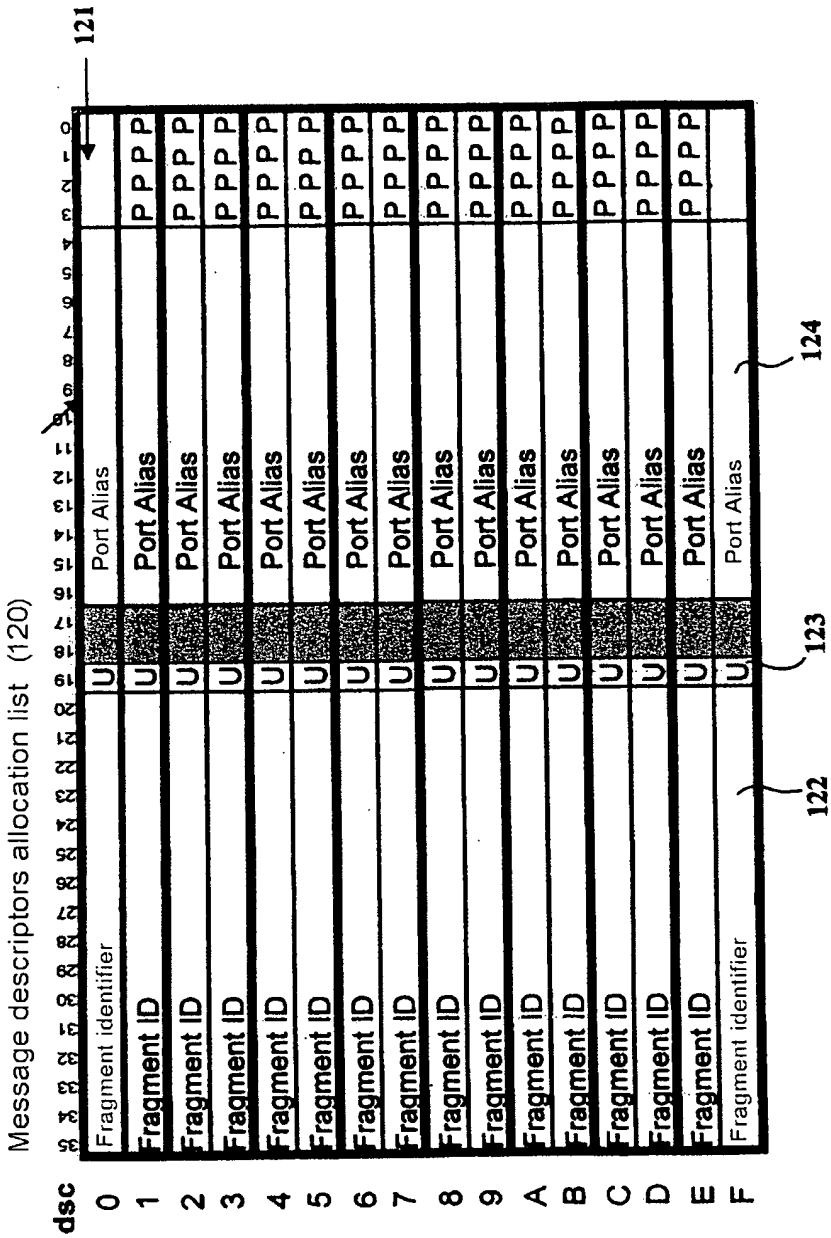

FIG.6

BEST AVAILABLE COPY

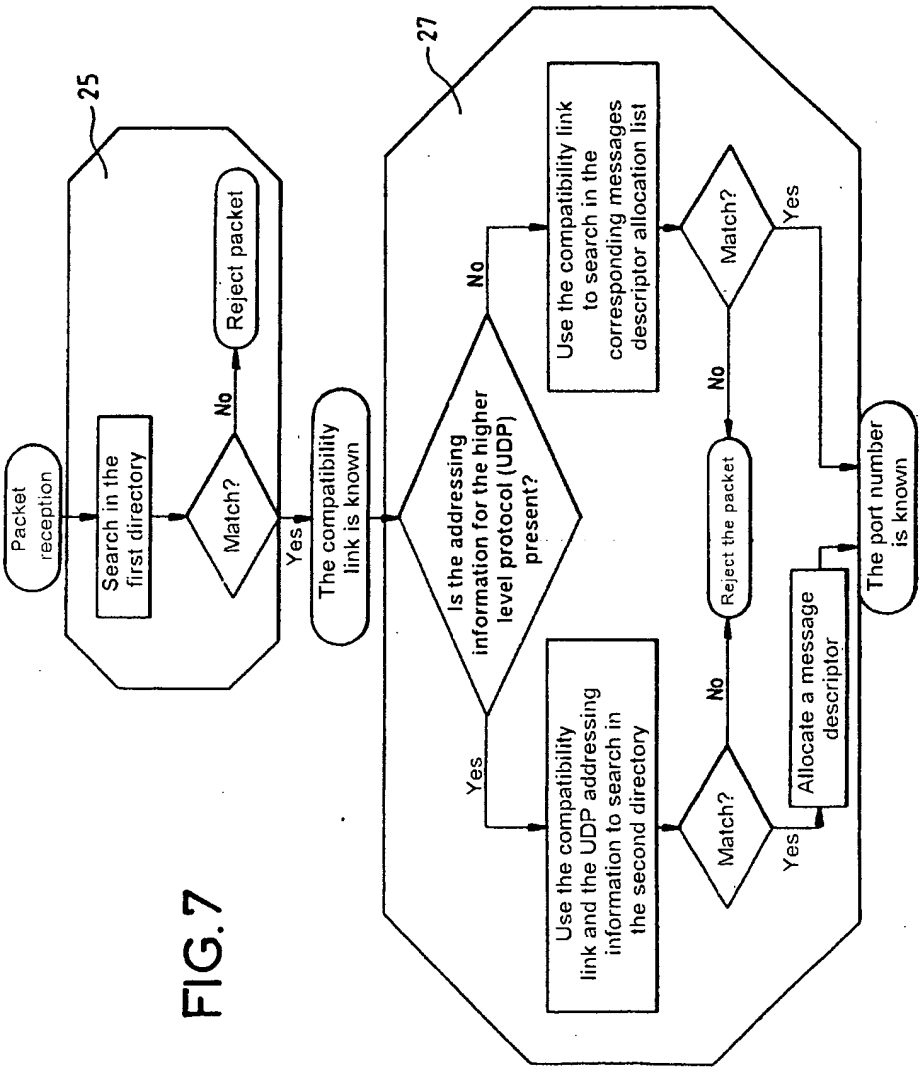

FIG.7

BEST AVAILABLE COPY